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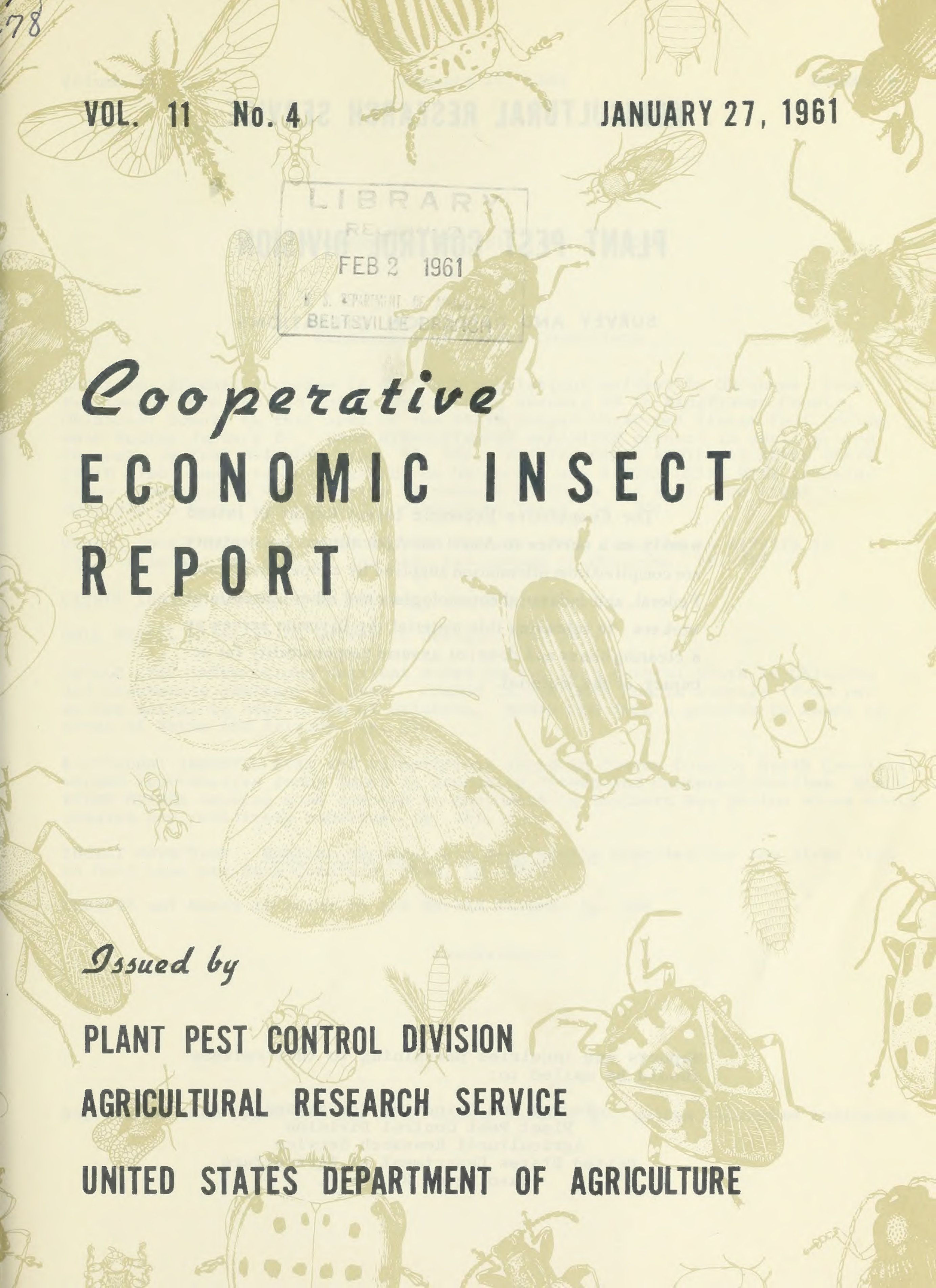

Cooperative
ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Survey and Detection Operations
Plant Pest Control Division
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Volume 11 January 27, 1961 Number 4

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

Definite, gradual increase in GREENBUG populations evident in Oklahoma. Some treatments were applied during week ending January 13 in Kingfisher County, Oklahoma; counts in that area of the State ranged 10-40 per linear foot during week ending January 20. Some HYMENOPTEROUS PARASITES present in small grains in south central Oklahoma. (pp. 35, 38). ENGLISH GRAIN APHID and APPLE GRAIN APHID also common in small grains in Oklahoma, and WINTER GRAIN MITE infestations appearing in small grains in western Oklahoma and vary from light to moderate in north central and northeastern Texas. (p. 35).

Heavy, local infestations of SPOTTED ALFALFA APHID reported in alfalfa in California and New Mexico, and reported common in Oklahoma. (p. 35).

CITRUS INSECT situation in Florida. (p. 36).

BOLL WEEVIL hibernation survey in Georgia. (p. 36).

CATTLE LICE infestations heaviest noted during past several years in Oklahoma and treatments continue in Utah. COMMON CATTLE GRUB counts average 15-25 per mature animal in most areas of Oklahoma. BROWN DOG TICK a problem in homes in areas of Texas and Arizona. (p. 37).

Additional IMPORTED FIRE ANT infestations found in Craven County, North Carolina; winged reproductive forms found in mounds in Craven and Carteret Counties. BLACK WIDOW SPIDER causing some concern to residents in southern New Mexico where adult females are relatively numerous. (p. 38).

INSECT DETECTION: Smaller European elm bark beetle reported for the first time in Salt Lake and Utah Counties, Utah. (p. 37).

INSECTS not known to occur in the United States. (p. 39).

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Reports in this issue are for week ending January 20, unless otherwise indicated.

WEATHER OF THE WEEK ENDING JANUARY 23

In the western half of the Nation, unseasonably mild, dry, sunny weather prevailed for the second consecutive week. In the eastern half, similar conditions early in the week were followed by the lowest temperatures so far this winter and a heavy snowstorm in the Northeast.

Most of the precipitation in the East, with totals exceeding 1/2 inch in the Appalachians and in the Atlantic Coastal States from Virginia northward, fell during the passage of the week's only major storm system which moved from the middle Mississippi Valley across Virginia and up the Atlantic coast on the 19th and 20th. Snowfall during the storm ranged up to 2 inches in southern Maryland and from 5 to 16 inches in the north central and western portions of the State, 10 to 12 inches over most of New Jersey with heavier falls of 24 to 30 inches in the extreme northwestern portion of the State, 4 to 12 inches over most of Pennsylvania with 19 inches in the Susquehanna Valley, 6 to 12 inches in southeastern New York State, and 10 to 20 inches in southern New England. The increasing intensity of the storm off the northeastern coast created severe blizzard conditions in southern New England. Northeast gales caused widespread flooding of coastal lowlands, forcing over 25 families to evacuate the Massachusetts Bay area. Snowfall on the afternoon and evening of the 19th in the Nation's Capital snarled traffic, unusually heavy owing to the influx of inauguration guests, to such an extent that many government workers did not reach their homes until after midnight.

Following the storm, a cold wave reduced temperatures to subzero levels in the northeastern quarter of the Nation, to subfreezing levels along the central and eastern Gulf coasts, and brought the first general freeze of the winter to the Florida Everglades. Owing to the cold weather at the end, temperatures for the week generally averaged from 6° to 9° below normal east of the Mississippi and 12° to 15° below in eastern New York State and western New England.

Maximum temperatures in the 60's set new records for January on the west coast of Oregon, and maxima in the 80's were reported in southern California. The only significant precipitation in the Far West occurred in western Oregon and Washington, with some lowland flooding reported in the latter State. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GREENBUG (Toxoptera graminum) - OKLAHOMA - Although overall infestations continue light in small grains throughout State, a definite gradual increase in populations has been evident during past few weeks of unseasonably moderate weather. Over one-half of fields surveyed throughout State recently found infested and isolated moderate infestations more common than two weeks ago in almost all areas. Counts per linear foot by areas were as follows: South central - up to 10; southwest - 4-8 in most fields, up to 40 in a few; west central and northwest - 0-10 in most fields, up to 25 in a few; central (mainly Kingfisher County) 10-40; north central - 0-10; east central - less than 5. (Okla. Coop. Sur.).

ENGLISH GRAIN APHID (Macrosiphum granarium) - OKLAHOMA - Common in small grains in all areas of State. Most counts averaged 5-15 per linear foot, with some isolated infestations much higher (up to 30 per linear foot). (Okla. Coop. Sur.).

APPLE GRAIN APHID (Rhopalosiphum fitchii) - OKLAHOMA - Common in small grains throughout State, with most counts averaging 5-10 per linear foot. Counts up to 50 per linear foot reported in few scattered fields in several areas. (Okla. Coop. Sur.).

CORN LEAF APHID (Rhopalosiphum maidis) - OKLAHOMA - Limited numbers, 5 or less per linear foot, still present in some small grains. (Okla. Coop. Sur.).

LEAFHOPPERS - NORTH CAROLINA - An unspecified species causing severe injury to oats in eastern part of Columbus County. (Read).

WINTER GRAIN MITE (Penthaleus major) - TEXAS - Infestations in north central and northeast areas vary from light to moderate. (Newton). OKLAHOMA - Infestations appearing in small grains in western half of State, with counts averaging up to 60 per linear foot in some localities. Counts in north central area continued at about same level as noted during December 1960 (less than 25 per linear foot). (Okla. Coop. Sur.).

A SPIDER MITE (Tetranychus sp.) - CALIFORNIA - Severe infestation on a 60-acre planting of alfalfa in Niland area, Imperial County. (V. Roth).

SPOTTED ALFALFA APHID (Therioaphis maculata) - CALIFORNIA - Heavy populations severely damaging isolated fields of alfalfa to the extent of killing small plants in Imperial County. (V. Roth). ARIZONA - Infestations remain light on alfalfa throughout State. (Ariz. Coop. Sur.). NEW MEXICO - Serious infestation found in alfalfa field near Hatch, Dona Ana County. Generally light in alfalfa throughout southern counties. (N. M. Coop. Rpt.). OKLAHOMA - Common in most alfalfa checked throughout State during past two weeks. Counts averaged 25 or less per square foot, with highest numbers being found in southeast area. (Okla. Coop. Sur.).

PEA APHID (Macrosiphum pisi) - OKLAHOMA - Common in most alfalfa checked in State. Counts averaged 2-36 per square foot, with some increase noted during past week. Highest counts in southeast. (Okla. Coop. Sur.). ARIZONA - Infestations increased slightly in alfalfa and peas, but generally very light. (Ariz. Coop. Sur.).

A COSMOPTERYGID (Walshia sp.) - TEXAS - Larvae found infesting roots of Madrid sweetclover in Navarro County. Overwintering larvae of Isophrictis similiella found in association with Walshia sp. (Newton).

FRUIT INSECTS

Citrus Insect Situation in Florida - Mid-January, 1961 - CITRUS RUST MITE (*Phyllocoptruta oleivora*) infested 63 percent of groves (norm 68 percent); 42 percent economic (norm 45 percent). Infestations will decline slightly from the current level but spotty increases will be common. Highest districts are Bartow, Ridge, west coast, Brooksville and Indian River. CITRUS RED MITE (*Panonychus citri*) infested 46 percent of groves (norm 59 percent); 16 percent economic (norm 31 percent). Although an increase is expected in late January, infestations will remain below average level. Highest districts are Bartow, west coast, Orlando and upper east coast. TEXAS CITRUS MITE (*Eutetranychus banksi*) infested 29 percent of groves; 8 percent economic. Infestations will be spotty and very few are expected to be troublesome. No districts are in high range. FLORIDA RED SCALE (*Chrysomphalus aonidum*) infested 69 percent of groves (norm 54 percent); 10 percent economic (norm 8 percent). Populations in most districts have dropped to near average level and will decline further. Highest districts are Bartow, Indian River and Ridge. PURPLE SCALE (*Lepidosaphes beckii*) infested 71 percent of groves; 6 percent economic. Infestations in all districts are in the low to moderate range and little change is expected. (Simanton, Thompson, Johnson (Citrus Exp. Sta., Lake Alfred)).

ORIENTAL FRUIT MOTH (*Grapholitha molesta*) - CALIFORNIA - General survey from early summer shows heavy twig damage on inner portion of peach trees prevalent. Fruit showed trace infestations at maturity in Escalon area, San Joaquin County. (Cal. Coop. Rpt.).

WOOLLY PEAR APHID (*Eriosoma pyricola*) - CALIFORNIA - Light infestation on pear tree and roots and bark in Ukiah, Mendocino County. (Cal. Coop. Rpt.).

TRUCK CROP INSECTS

A SERPENTINE LEAF MINER - FLORIDA - Collected on potatoes, tomatoes and beans, averaging about 2 per leaf, in Dade County area. (Wolfenbarger, Jan. 13).

TURNIP APHID (*Rhopalosiphum pseudobrassicae*) - CALIFORNIA - Light infestations of this aphid and diamondback moth (*Plutella maculipennis*) occurring on *Brassica* sp. in Vacaville, Solano County. (Cal. Coop. Rpt.).

HARLEQUIN BUG (*Murgantia histrionica*) - NEW MEXICO - Adults hibernating in large numbers in farm buildings in Roosevelt and Curry Counties. (N. M. Coop. Rpt.).

COTTON INSECTS

BOLL WEEVIL (*Anthonomus grandis*) - GEORGIA - Fall examinations of surface trash from woods adjacent to old cotton fields to determine the number of weevils in hibernation made in Early County (south) on December 14 and in Pike County (north central) on December 19. The number of live weevils per acre of surface trash was 2,081 in Early County and 2,420 in Pike County. The number of two-square-yard samples collected in Early County was 50 and for Pike County 20. (C. M. Beckham).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

WESTERN PINE BEETLE (*Dendroctonus brevicomis*) - CALIFORNIA - Rather heavy buildup causing many new fades and kills in groups up to 100 ponderosa pines in several areas of Calaveras County. (S. Bryan, W. Kaphaldt, C. Wolfe).

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - TEXAS - Control measures being applied to 15 tracts of land in Hardin and Liberty Counties along a severely pruned electric transmission line. Turpentine beetle infestations found in same areas. Ips spp. have killed several severely pruned pines along same right-of-way. (Texas For. Pest Comm., Dec. Rpt.).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - NORTH CAROLINA - Counts 12 per needle locally on pine seedlings in Wake County. (Jones, Farrier; Jan. 13).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - UTAH - Several records of specimens determined by Dr. S. L. Wood were reported by him on January 10, 1961. The collection data were as follows: Salt Lake City, Salt Lake County, during summer of 1933; Murray, Salt Lake County, Logan, Cache County, and Provo, Utah County, on several dates from 1958 to 1960; and Lehi, Utah County, in July 1959. (Knowlton). These are the first ARS records for Salt Lake and Utah Counties.

PEA LEAF MINER (Liriomyza langei) - CALIFORNIA - Medium infestation on chrysanthemum in Colma, San Mateo County. (Cal. Coop. Rpt.).

TULIP BULB APHID (Anuraphis tulipae) - CALIFORNIA - Heavy populations on tulip and crocus bulbs in San Rafael, Marin County. (Cal. Coop. Rpt.).

TEA SCALE (Fiorinia theae) - NORTH CAROLINA - Infesting camellia and sasanqua in Wilson County and counts 10-40 per leaf on Chinese holly locally in Rowan County. (Jones, Farrier, Corriher).

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - NORTH CAROLINA - Local infestations reported on ornamental plants in Wayne, Hoke and Chatham Counties; some heavy. (Jones, Farrier, Chadwick).

CYCLAMEN MITE (Steneotarsonemus pallidus) - NORTH CAROLINA - Severe infestation of many African violets locally in Wake County. (Jones, Farrier).

INSECTS AFFECTING MAN AND ANIMALS

CATTLE GRUBS (Hypoderma spp.) - UTAH - Present in backs of cattle in Tooele County. (Knowlton). OKLAHOMA - Infestations of Hypoderma lineatum in cattle remained static throughout State, with counts averaging 15-25 per mature animal in most areas. (Okla. Coop. Sur.).

MOSQUITOES - TEXAS - Culex spp., mostly C. salinarius, continued to occur in larger numbers in Jefferson County whenever temperatures permit migration. Trap catches in December were as follows: December 7 - 1,184, December 28 - 680, December 29 - 656. A total of 1,900 was taken from December 23 to December 27. Uranotaenia sapphirina was taken at Port Arthur; Anopheles crucians occurred throughout Jefferson County; Anopheles quadrimaculatus occurred in mid-Jefferson County and Beaumont area; and Culiseta inornata was generally distributed in Jefferson County. (Jefferson Co. Mosq. Cont. Comm.).

CATTLE LICE - UTAH - Treatments of cattle reported in Tooele and Carbon Counties. (Knowlton). OKLAHOMA - Heavy infestations of all types of cattle widespread throughout State. Cattle in some herds in north central area had rubbed some areas of their bodies free of hair. These are heaviest infestations noted during past several years. (Okla. Coop. Sur.).

HOG LOUSE (Haematopinus suis) - OKLAHOMA - Common on hogs in south central and southeast areas. (Okla. Coop. Sur.).

BROWN DOG TICK (Rhipicephalus sanguineus) - TEXAS - Entering homes in Brazos County. (Newton). ARIZONA - Heavy populations a problem around some homes in Phoenix area of Maricopa County. (Ariz. Coop. Sur.).

STORED-PRODUCT INSECTS

Stored-grain Insects in Oklahoma - Survey of stored grain on 2 farms in south central area showed the following pests to be present: GRANARY WEEVIL (*Sitophilus granarius*), 3-5 per quart; LESSER GRAIN BORER (*Rhyzopertha dominica*), 6 per quart on one farm; ANGOUMOIS GRAIN MOTH (*Sitotroga cerealella*), 1 per quart on one farm; SAW-TOOTHED GRAIN BEETLE (*Oryzaephilus surinamensis*), 9 per quart on one farm; and CONFUSED FLOUR BEETLE (*Tribolium confusum*), 4 per quart on one farm. (Okla. Coop. Sur.).

BENEFICIAL INSECTS

HYMENOPTEROUS PARASITES - OKLAHOMA - Light numbers found in a few fields of small grains in south central area. (Okla. Coop. Sur.).

AN ICHNEUMONID (*Melanichneumon gestuosus*) - NORTH CAROLINA - Reared from pupa of *Trichoplusia ni* on September 5, 1960, in Henderson County. Det. by L. M. Walkley. This is a new host record for this parasite. (Mitchell).

MISCELLANEOUS INSECTS

IMPORTED FIRE ANT (*Solenopsis saevissima richteri*) - NORTH CAROLINA - Surveys revealed 12 new properties infested in Craven County. Some with large mounds in field not cultivated for 2 years. Winged reproductive forms found in mounds in Craven and Carteret Counties. (Branan).

BLACK WIDOW SPIDER (*Latrodectus mactans*) - NEW MEXICO - Causing some concern among residents of communities throughout southern counties where adult females are being found in relatively large numbers. (N. M. Coop. Rpt.).

CLOVER MITE (*Bryobia praetiosa*) - UTAH - Invading several homes in Salt Lake City, Salt Lake County. (Knowlton).

BOXELDER BUG (*Leptocoris trivittatus*) - UTAH - Annoying about some homes at Provo, Utah County. (Knowlton). NEW MEXICO - Nuisance because of large numbers entering homes in Rio Arriba County. (N. M. Coop. Rpt.).

CARPET BEETLE (*Anthrenus scrophulariae*) - OKLAHOMA - Heavy infestations damaging rugs in a home in Stillwater. (Okla. Coop. Sur.).

CASEMAKING CLOTHES MOTH (*Tinea pellionella*) - OKLAHOMA - Heavy infestations causing severe damage to rugs in a home in Stillwater. (Okla. Coop. Sur.).

CUBAN COCKROACH (*Panchlora nivea*) - RHODE ISLAND - One individual found January 6 in Cranston home. Family in home recently received a package of fruit from Texas. (Mathewson).

LIGHT TRAP COLLECTIONS

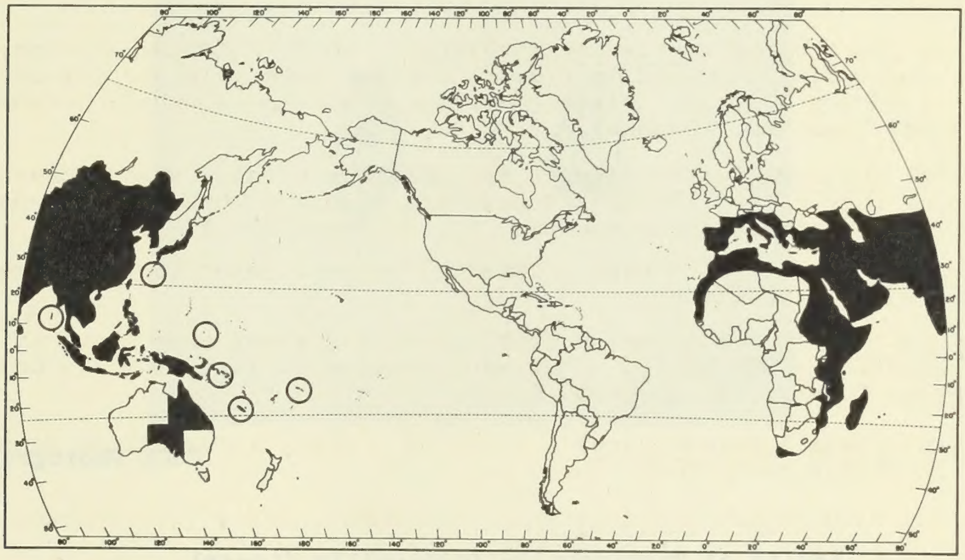
	Pseudaletia unipuncta	*Agrotis ipsilon*	*Feltia subterranea*	*Heliothis zea*
SOUTH CAROLINA				
Charleston 1/9-15	1	2	15	
Charleston 1/16-22		1		
FLORIDA				
Homestead 1/10				1

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

RED PUMPKIN BEETLE (Raphidopalpa foveicollis (Lucas))

Economic Importance: The genus Raphidopalpa is not known to occur in the United States. One or more species in this genus cause economic damage to cucurbits in areas of Australia, Asia, Europe and Africa. R. foveicollis, for example, is rated as one of the most important pests of melons in Greece where the larvae cause serious damage to roots in irrigated plantings. It is also regarded as a serious threat to melon production in North Africa, Italy, Iran, and other areas. In addition to the larvae feeding in roots and stems, the adults feed on foliage and flowers. Seedling plantings are sometimes destroyed. Other important species of Raphidopalpa include adominalis (F.), chinensis Ws., femoralis (Motsch.), and orientalis (Honst.).

Distribution: Raphidopalpa spp. have been reported from many areas of Australia, Asia, Europe, Africa and from islands near these areas. The distribution of the individual species, as well as their taxonomy, apparently needs additional study.

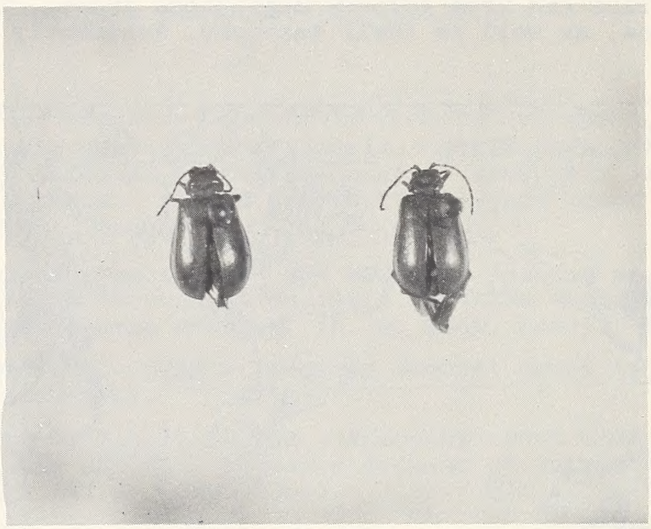


General Distribution of Raphidopalpa spp.

Hosts: Cucurbits preferred, although the species mentioned here have been collectively recorded from many other plants.

Life History and Habits: The following refers to R. foveicollis: Adults overwinter under debris and fallen leaves and emerge from early spring (April-May) onwards in the Mediterranean region, becoming most numerous in Greece during June. These congregate on leaves of cucurbits which they will riddle with holes or, in the case of tender leaves, perhaps skeletonize. Whole plantings of seedlings may be destroyed. On old plants flowers are also eaten. In Italian observations oviposition began towards the end of May, the females subsequently depositing more than 300 eggs each. Eggs were usually laid singly or in pairs in soil at the base of the plants, mainly in shady places or under clods. They hatched in 14-16 days in May-June and in 8-10 days in July. Larval and pupal stages in the soil lasted 30-40 and 8-10 days, respectively. The larvae characteristically feed on roots and stems, occasionally boring into them. Leaves and fruit in contact with the soil are also attacked. In the Israel area, 2-4 generations a year are said to occur, but elsewhere in the Mediterranean region only one generation is reported.

Description: *Raphidopalpa foveicollis* adult is 6.5 to 7 mm. long, entirely rose vermilion, except areas on ventral surface of the thorax and abdomen which are black, and covered by a fine gray pubescence. The eyes and points of mandibles are also black. The antennae, 11-segmented, are inserted between the eyes. First segment is long and swollen, the second very short. Tarsi are four-segmented, the first elongated. The shape of the pronotum is a remarkable characteristic which aids in recognition. This is excavated above, with a deep impression running from one side to the other. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies). CEIR 11(4):1-27-61.



USDA Photograph

Adults of *Raphidopalpa foveicollis* (Lucas)

Major reference: Balachowsky, A. and Mesnil, L. 1936. Les Insectes Nuisibles aux Plantes Cultivees, pt. 2:1329, Paris.

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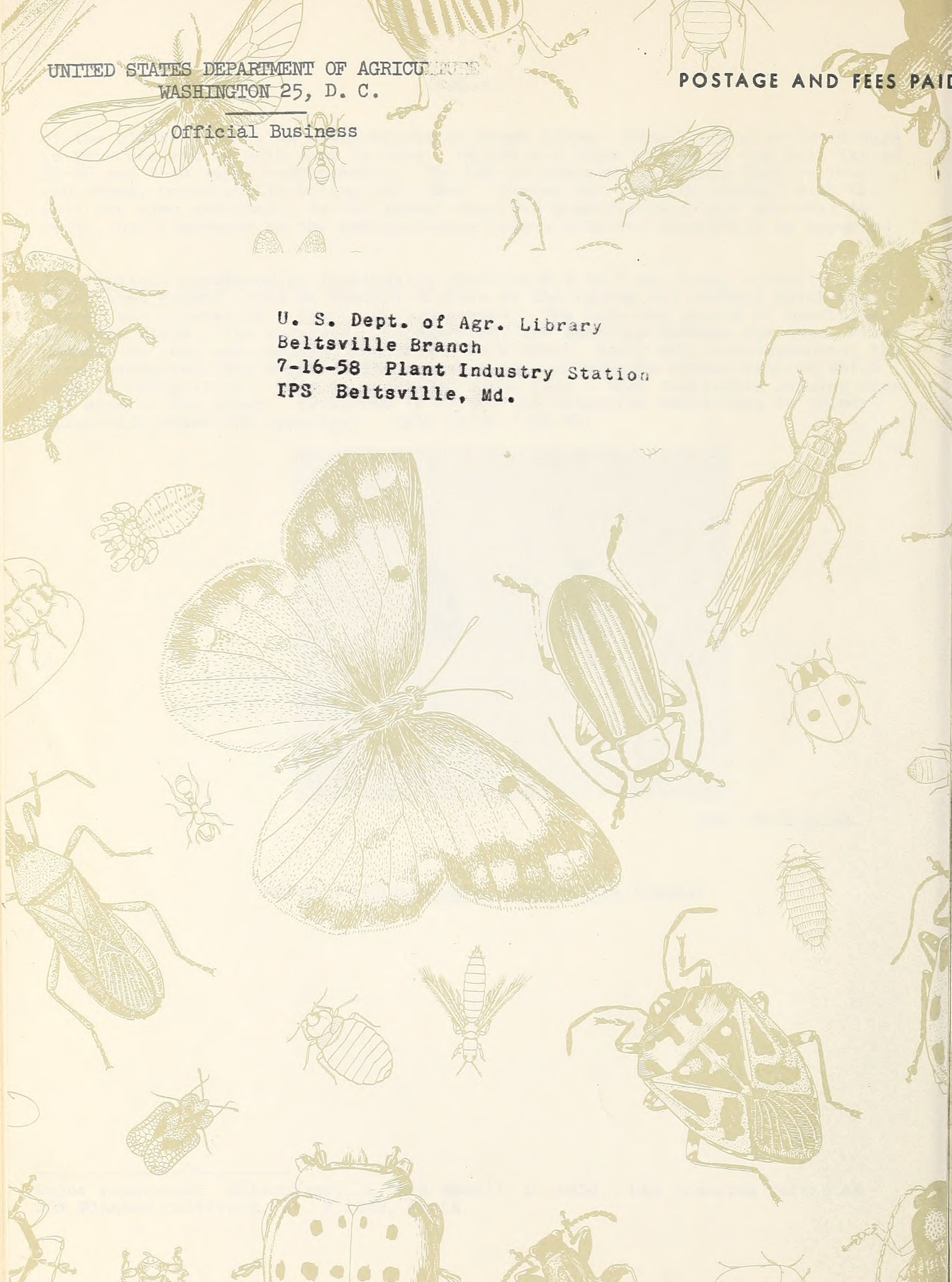

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